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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/586,156

07/14/2006

Yasuyuki Arai

0756-7774

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31780

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04/02/2009

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EXAMINER

TAYLOR, APRIL ALICIA

ART UNIT

PAPER NUMBER

2887

MAIL DATE

DELIVERY MODE

04/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/586,156 | Applicant(s) ARAI ET AL. | |
| | Examiner APRIL A. TAYLOR | Art Unit 2887 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-10 and 13-36 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/14/06; 7/14/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-10, and 13-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Kano et al (US 6,522,549) (hereinafter Kano).

Re claims 1, 2, 8 and 9: Kano teaches an IC card (1) including:

a label substratum (2) over which an antenna is formed;

a thin film integrated circuit device (7) including a thin film transistor, provided in contact with the label substratum;

a separating sheet (3a, 3b); and

an adhesive provided between the label substratum and the separating sheet;

and

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wherein the antenna and the thin film integrated circuit device are connected through a cross wiring. (See col. 4, line 25 to col. 5, line 13)

Re claims 3, and 10: Kano teaches wherein a protective layer (4a, 4b) comprising a single layer or stacked layers containing silicon oxide, silicon nitride or silicon oxynitride is formed on at least one of an upper surface and a lower surface of the thin film integrated circuit device (see col. 5, lines 14+).

Re claims 6 and 13: Kano teaches wherein a size of the thin film integrated circuit device is 0.09 to 25 mm² (see col. 4, lines 55+).

Re claims 7 and 14: Kano teaches wherein a thickness of the thin film integrated circuit device is 0.1 to 3 μm (see col. 4, lines 55+).

Re claims 15-17, 19-21, 23-25, 27-29, 31 and 33: Kano teaches an IC card including:

a card substratum over which an antenna is formed;

a thin film integrated circuit device including a thin film transistor, provided in contact with card substratum;

a cover for covering at least a side of the card substratum where an antenna and the thin film integrated circuit device are formed;

wherein the antenna and the thin film integrated circuit device are connected through a cross wiring;

wherein the cover comprises resin and is formed by a laminating method.

Re claims 18, 22, 26, 30, 32, and 34: Kano teaches wherein a protective layer comprising a single layer or stacked layers containing silicon oxide, silicon nitride or

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silicon oxynitride is formed on at least one of the upper surface and the lower surface of the thin film integrated circuit device.

Re claim 35: Kano teaches IC card including:

a label substratum having a first surface and a second surface opposing to the first surface;

an antenna formed over the first surface of the label substratum;

a thin film integrated circuit device including a thin film transistor, over the first surface of the label substratum;

a wiring formed on the second surface of the label substratum;

a separating sheet provided over the first surface of the label substratum with an adhesive layer, antenna, and the thin film integrated circuit device interposed therebetween,

wherein the wiring electrically connect the thin film transistor and a part of the antenna through a contact hole formed in the label substratum. (See col. 4, line 25 to col. 5, line 26)

Re claim 36: Kano teaches IC card including:

a label substratum; an antenna formed over the label substratum; an insulating layer over the antenna; a wiring formed on the insulating layer; a thin film integrated circuit device including a thin film transistor, over the label substratum; a separating sheet provided over the label substratum with an adhesive layer, the antenna, and insulating layer, and the thin film integrated circuit device interposed therebetween,

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wherein the wiring is connected to the antenna through a contact hole formed in the insulating layer. (See col. 4, line 25 to col. 5, line 26)

Allowable Subject Matter

Claims 4, 5, 11, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Re claims 4 and 11: The prior of record, taken alone or in combination, fail to teach or fairly suggest, in conjunction with other limitations in the claims, wherein in the case where the protective layer is formed on the upper surface and the lower surface of the thin film integrated circuit device, it is placed the thin film integrated circuit device at a position of $(d/2) \pm 30 \text{ um}$ or less when a total thickness of the thin film integrated circuit device and the top and bottom protective films is d .

Re claims 5 and 12: The prior of record, taken alone or in combination, fail to teach or fairly suggest, in conjunction with other limitations in the claims, wherein a semiconductor film of the thin film transistor included in the thin film integrated circuit device contains hydrogen or halogen of 0.0005 to 5 atomic %.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Leighton (US RE40,145 E) and Osako et al (US 6,988,668)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to APRIL A. TAYLOR whose telephone number is (571)272-2403. The examiner can normally be reached on Monday - Friday from 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven S. Paik can be reached on (571) 272-2404. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thien M. Le/
Primary Examiner, Art Unit 2887

/AAT/
Examiner, GAU 2887

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March 30, 2009